

CHEVRON RICHMOND REFINERY

TENTATIVE ORDER AND NPDES PERMIT

REQUEST FOR *COMPLIANCE SCHEDULE* AND DEMONSTRATION OF INFEASIBILITY TO ACHIEVE IMMEDIATE COMPLIANCE WITH CALCULATED EFFLUENT LIMITATION FOR **Non 303(d) Pesticides**

Executive Summary

Note: Chevron continues to maintain that the RWQCB and staff have not made a valid showing that Chevron has a reasonable potential and deserves a limit for most of the pesticides. Chevron does not waive its objections to the inclusion of effluent limits for pesticides in its NPDES permit. Chevron submits this addendum for any limits which may ultimately be properly adopted by this board for pesticides named in this document.

Pursuant to discussions with staff and to §2.1 of the SWRCB's *Policy for Implementation of Toxics Standard for Inland Surface Waters, Enclosed Bays, and Estuaries of California* [the "SIP"], Chevron submits as an addendum to its NPDES permit application a request for a compliance schedule and Chevron's documentation that it is infeasible to meet the final limits for certain pesticides proposed in the RWQCB's tentative order.

Infeasibility Demonstration.

In support of its request, Chevron submits the following demonstration that it is infeasible to achieve immediate compliance with the final limits (see below) for Aldrin, alpha-BHC, alpha-Endosulfan, beta-Endosulfan, Endrin, and Toxaphene.

As defined in the SIP, infeasible means

“not capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors”

In this case, the SIP defines a “reasonable period of time” to be “immediate.” Therefore, in cases where, as here, the actions needed to achieve compliance could not be implemented by the permit’s effective date, they could not be completed within a reasonable period of time. In addition to this timing factor, possible actions to achieve compliance must be evaluated in light of the defined factors to determine their feasibility.

Staff has calculated a proposed final Water Quality Based effluent limit as shown below.. The SIP provides no guidance on how a discharger should demonstrate infeasibility of compliance with final limits for non-detected pollutants where detection limits are above the final limit. Chevron believes that such a demonstration must be based on the fact that, for pollutants that are non-detect, a discharger cannot feasibly determine what levels of the pollutant (if any) are present or what actions should be taken to achieve consistent compliance with the final limit. From this perspective Chevron's performance history relating to these constituents does not provide a scientifically valid basis for demonstrating whether or not compliance is possible. Accordingly, Chevron believes it is infeasible to conclude, based on the available data, that immediate compliance with the final limit is achievable. Further, as explained in greater detail below, Chevron has undertaken a variety of efforts to date to reduce its discharge loading as much as possible and cannot achieve immediate compliance with the proposed final limits for the following reasons:

- Source on the contaminant is currently unknown
- The technology currently in place is already thought to be the best available and we are not aware of a better technology to provide
- If any major projects were to be generated as the result of identifying additional practical treatment or source control technologies, we would have to go through a permitting process and might trigger CEQA and an environmental impact analysis. Permitting and CEQA processes can be very time consuming.
- A detailed program to develop alternative feasibility technologies may be required, as outlined below

Given the factual uncertainty surrounding the data, it is unclear what additional actions and measures may be necessary to meet that limit. A number of steps will be needed to determine what actions may be necessary and feasible in order to achieve compliance with this limit. Those steps will involve additional studies to evaluate future options, and those studies may demonstrate that new technology or new methods are necessary, appropriate and feasible. For example, Chevron may evaluate options, using criteria such as the following:

- Known, demonstrated technology that is available and has been demonstrated in refineries or related industries;
- Ability to achieve required effluent levels;
- Ability to pilot or demonstrate the technology in Chevron's plant;
- Implementation time for a given technology;

- Feasibility and cost effectiveness.

Certainly, carrying out these steps will be costly and time-consuming and may require additional environmental analyses and permits. In any case, they can not be completed and implemented in time for this permit to go into effect.

For the reasons discussed above, Chevron believes it is infeasible to achieve immediate compliance with the proposed effluent limit for Aldrin, alpha-BHC, alpha-Endosulfan, beta-Endosulfan, Endrin, and Toxaphene.

This request is specific to the following non-§303(d) listed pesticides: Aldrin, alpha-BHC, alpha-Endosulfan, beta-Endosulfan, Endrin, and Toxaphene.

Staff has proposed a WQBEL for these compounds in the tentative order as shown below. None of these compounds are detected in our effluent. In fact, Chevron maintains that there is no reasonable potential to justify limits on these contaminants. Assuming for the sake of this document that limits are justified, and absent any performance data, Chevron can not demonstrate that it can consistently comply with the proposed limits today or in the near future.

Compound	AMEL, ug/L	MDEL, ug/L
Aldrin	0.00014	0.00028
alpha-BHC	0.127	0.256
alpha-Endosulfan	0.0710	0.1425
beta-Endosulfan	0.0707	0.1419
Endrin	0.0187	0.0375
Toxaphene	0.00059	0.00118

In the following sections Chevron will document:

- A. Diligent efforts made to quantify pollutant levels in the discharge and the sources of the pollutant in the waste stream, and the results of those efforts;
- B. Source control and/or pollution minimization efforts currently underway or completed;
- C. A proposed schedule for additional or future source control measures, pollution minimization actions, or waste treatment;
- D. A demonstration that the proposed schedule is as short as practicable.

A. Pollutant Levels and Sources.

Final Limits and Effluent Data. The proposed WQBEL final limits, and the refinery's historical effluent data, for pesticides are:

Compound	AMEL, ug/L	MDEL, ug/L	Analytical PQL	Over/Under the PQL
Aldrin	0.00014	0.00028	0.025	0/9
a-BHC	0.127	0.256	0.025	0/9
a-Endosulfan	0.0710	0.1425	0.025	0/9
β-Endosulfan	0.0707	0.1419	0.025	0/9
Endrin	0.0187	0.0375	0.05	0/9
Toxaphene	0.00059	0.00118	1.2	0/8

Absent any data to predict our performance, we cannot document that we can comply with any of these limits.

Sources:

There are no known sources of the listed pesticides in the refinery. Manufacture of these pesticides has been banned for many years. Chevron does not use them.

The permit writer has suggested that because Chevron Chemical Company at one time manufactured pesticides, that there is reasonable potential for them to be present in Chevron's effluent at levels which may cause or contribute to an exceedance of water quality standards. Chevron disputes this finding based on the following facts:

- None of the listed constituents are detected in our effluent
- Pesticides were never manufactured nor formulated at the Richmond Refinery.
- Pesticides were formulated at the former Chevron Chemical Hensley St. facility, but wastewaters associated with this operation were incinerated and contaminants, if present, were destroyed by a factor of at least 99.99%.
- Blowdown from this incinerator was routed through the refinery effluent system but it was a small fraction of flow in this system.
- Pesticides have not been manufactured or formulated at the Hensley St. facility for nearly a decade and the incinerator was shut down more than five years ago.
- Chevron has submitted years of data showing that these pesticides are not detected in the effluent.
- The order, findings, and Fact Sheet do not explain, nor is there a logical explanation, for how pesticides can be present in the effluent today, from an incinerator with >99.99% destruction, when no wastes have been received from this incinerator for several years.

Based on this discussion, we can not identify any sources of these pesticides in our refinery.

B. Minimization / Reduction Practices:

We do not use, formulate, manufacture, or package any of the listed pesticides, nor have we for many years.

This refinery polishes its biologically treated effluent with granular activated carbon, and is one of the few refineries in the country to do so (along with our neighbors to the north). GAC is generally recognized as a treatment for pesticides.

C. Pollution Minimization Actions and Schedule

Chevron proposes the following schedule for additional measures:

Chevron has developed a schedule of action items that would be necessary to come into compliance with the WQBELs. As demonstrated above, there is a great deal of uncertainty about what actions are possible, appropriate and feasible, so the schedule of compliance would not define the specific action items but rather the steps that would be taken to develop the measures needed to come into compliance.

- Develop a study proposal by 12/31/01 and submit it to RWQCB staff. This study proposal would address such issues as source location, generation, quantity, potentially speciation, investigation potential improvements to pesticide control at process units, and investigation of treatment of refinery wastewater.
- Step 1. Based on data collected through year-end 2002, develop a proposal for a study plan by 06/30/03 and submit it to RWQCB staff.
- Step 2. Potentially implement a cost-effective plan by 09/30/03 upon Staff approval.
- Step 3. Report progress annually by 09/30/04 and 09/30/05.
- Step 4. Complete the work defined by the plan by 03/31/06.
- Step 5. Submit completion report by 6/15/06.

We are at a loss to suggest how we will further minimize the pesticides in our effluent when:

- There are no known sources
- We do not use, manufacture, formulate, or package these materials and have not done so for many years
- We cannot detect them

We will continue to monitor for these constituents and see if we detect any in the future. If we do, we will formulate a plan at that time and work with staff to implement it.

Chevron will conduct any source control or pollution minimization studies in accordance with California Water Code §13263.3 and §2.1 of the SIP. In accordance with CWC §13263.3, this work will proceed outside of the NPDES permit itself, and will not be a condition of this permit.

D. Why schedule is as short as practical.

Because future work will depend on our ability to detect these compounds in our effluent, and there is no basis to suggest a shorter compliance schedule, the five-year schedule is the shortest practicable that can be established under the circumstances.